

REMARKS

In the Office Action dated June 3, 2009, the Examiner has set forth a requirement for restriction under 35 U.S.C. §121 and §372, alleging that the subject matter defined by the claims of the present invention are not so linked as to form a single general inventive concept under PCT Rule 13.1:

Group I. Claims 1-61, drawn to a method for recovering arabinose from a vegetable fiber.

Group II. Claims 62-71, 80, and 81, drawn to a method for crystallizing arabinose.

Group III. Claims 72-77, drawn to crystalline L-arabinose.

The Office Action alleges that the alleged inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features. The Office Action alleges that the special technical feature of Group I is the recovery of D- and L-arabinose by enzymatic hydrolysis of a vegetable fiber to obtain a hydrolyzate, separation to obtain a clarified hydrolyzate and crystallization of the product of fractionization in an aqueous solution. The Office Action alleges that the special technical feature of Group II is the crystallization of D- and L- arabinose from a biomass-derived solution by a single-stage boiling in an aqueous solution. The Office Action alleges that the special technical feature of Group III is crystalline L-arabinose having a melting point higher than 164 degrees Celsius determined by DSC or a melting point higher than 158 degrees Celsius determined by the European Pharmacopeia.

In order to be fully responsive to the requirements for restriction, Applicants provisionally elect, with traverse, to prosecute the subject matter of Group I, Claims 1-61, drawn

to a method for recovering arabinose from a vegetable fiber. Applicants have not abandoned the subject matter in claims of Groups II and III and reserve the right to file a divisional application directed to the non-elected subject matter.

However, pursuant to 37 C.F.R. §§1.111 and 1.143, Applicants hereby traverse the requirement for restriction and request reconsideration thereof in view of the following remarks. A requirement for restriction presupposes an analysis of the subject application in light of the rules governing this practice, i.e., 37 C.F.R. §1.499 and PCT Rules 13.1 and 13.2. PCT Rule 13.1, first sentence, states: “The international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept (‘requirement of unity of invention’).” (Emphasis added.) PCT Rule 13.2 states: “The expression ‘technical features’ shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.” (Emphasis added.)

Contrary to the allegations in the Office Action, Applicants respectfully assert that Groups I, II, and III, represent one single inventive concept warranting examination in a single application. More specifically, Group I is directed to a process for recovering arabinose from vegetable fiber rich in heteropolymeric arabinose, which process includes the step of crystallizing arabinose, Group II is directed to a method of crystallizing arabinose, while Group III is directed to crystalline arabinose. Thus, all three groups contain subject matter relating to crystalline arabinose. Thus, Groups I, II, and III are related to each other as different aspects of a single inventive concept.

Accordingly, it is respectfully submitted that the restriction requirement is improper.

Moreover, it is respectfully submitted that there is no additional burden on the USPTO to conduct a search since applicants elected Group I. Since crystallization of arabinose is part of the process of Group I, in conducting a search the USPTO would need to look at claims/subclasses that relate to process of crystallization of arabinose and crystallized arabinose, that is the USPTO would be conducting a search of Groups II and III respectively anyway. Thus, by electing Group I, there is no additional burden on the USPTO to conduct a search for Groups II and III. Moreover, the fact that a search for Group I includes a search of the subject matter of Groups II and III supports applicants' position that Groups I, II and III relate to one inventive concept.

Hence, it is respectfully submitted that the claims of Groups I, II, and III satisfy the requirements for unity of invention and should be examined in one application. Applicants respectfully urge the Examiner to reconsider and withdraw the requirement for restriction and provide an action on the merits with respect to all of the claims.

The Office Action also requires Applicants to elect a single species, for searching purposes and prosecution on the merits only, to which the claims are to be restricted only if no generic claim is finally held to be allowable. The Office Action also requires Applicants to identify the claims readable on the elected species. In full compliance thereto, but with traverse, Applicants provisionally elect, with traverse, the following species: the optional step of neutralization to not be performed and the optional step of fractionization to be performed (Species A), another monosaccharide to be recovered with the arabinose, wherein the monosaccharide is galactose (Species B), and exudate gum, wherein the exudate gum is gum arabic (Species C). Moreover, Claims 1-61 read on the elected species.

With respect to the species election, Applicants reiterate the comments hereinabove, the contents of which are incorporated by reference. All of the species are directed to methods for the recovery of arabinose, as well as compositions produced thereby by the method recited in Group I. Thus, they are all linked together to form a single inventive concept. Moreover, with respect to Group I, in the process steps, the identity of the products that may be recovered along with the arabinose have no effect on the burden by the USPTO in conducting a search, as a search for the process of making arabinose would uncover any art where an impurity of galactose is also present. Moreover, with respect to the optional steps of neutralization and fractionation, it should be noted that the process steps recited in Group I are generic thereto: thus a search for the subject matter of Group I without the optional steps would necessarily uncover the species elected with respect to these process steps. Thus, there should be no additional burden on the USPTO to conduct a search, regardless of the species chosen. Therefore, it is respectfully submitted that the Election Requirement should be withdrawn.

It is vital to all applicants that the Restriction Requirements and Election of Species Requirement issue only with the proper statutory authorization, because patents issuing on divisional applications which are filed to prosecute claims that the Examiner held to be independent and distinct can be vulnerable to legal challenges alleging double patenting. The third sentence of 35 U.S.C. § 121, which states that a patent issuing on a parent application “shall not be used as a reference” against a divisional application or a patent issued thereon, does not provide comfort to applicants against such allegations. The Court of Appeals for the Federal Circuit has declined to hold that 35 U.S.C. §121 protects a patentee from an allegation of same-invention double patenting, Studiengesellschaft Kohle mbH v. Northern Petrochemical Co., 784 F.2d 351, 355, 228 U.S.P.Q. 837, 840 (Fed. Cir. 1986); and in Gerber Garment Technology Inc.

v. Lectra Systems Inc., 916 F.2d 683, 16 U.S.P.Q.2d 1436 (Fed. Cir. 1990), that court held that §121 does not insulate a patentee from an allegation of “obviousness-type” double patenting, and in fact affirmed the invalidation on double patenting grounds of a patent that had issued from a divisional application filed following a restriction requirement. Furthermore, it is far from clear that the step of filing a terminal disclaimer is available to resolve a double patenting issue that arises after the issuance of a patent on the divisional application.

All these considerations indicate that the imposition of a Restriction Requirement and/or an Election of Species Requirement with inadequate authority can lead to situations in which Applicants legitimate patent rights are exposed to uncertainty and even extinguished. Accordingly, to protect a patentee’s rights and to serve the public’s interest in the legitimacy of issued patents, Applicants respectfully urge the Examiner not to require restriction or election of species in cases such as the present application wherein various aspects of a unitary invention are claimed.

In addition, the Courts have recognized the advantages to the public interest to permit patentees to claim all aspects of their invention, as the applicants have done herein, so as to encourage the patentees to make a more detailed disclosure of all aspects of their invention.

The CCPA has observed:


We believe that the constitutional purpose of the patent system is promoted by encouraging applicants to claim, and therefore to describe in the manner required by 35 U.S.C. § 112 all aspects of what they regard as their invention, regardless of the number of statutory classes involved.

In re Kuehl, 456, F.2d 658, 666, 177 U.S.P.Q. 250, (CCPA 1973).

Furthermore, Applicants respectfully request that in view of increased Official Fees and the potential limitation of Applicants financial resources, a practice which arbitrarily imposes a Restriction or Election of Species requirement may become prohibitive, and thereby contravenes the constitutional intent to promote and encourage the progress of science and the useful arts.

In view of the foregoing comments, Applicants respectfully urge the Examiner to reconsider and withdraw the Restriction and Election of Species Requirement.

Respectfully submitted,



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